

DOCKET NO.: PU-0031/01-1739-1



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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PATENT

In Re Application of:

Yigong Shi

Serial No.: 09/965,967

Group Art Unit: 1646

Filing Date: September 28, 2001

Examiner: Not Yet Assigned

For: COMPOSITIONS AND METHODS FOR REGULATING APOPTOSIS

DATE OF DEPOSIT: 12/10/01
I HEREBY CERTIFY THAT THIS PAPER IS BEING
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TYPED NAME: Janet E. Reed
REGISTRATION NO.: 36,252

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 C.F.R. §1.56 and in accordance with 37 C.F.R. §§1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 C.F.R. §1.56(b).



In accordance with §1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified application, within three months of the date of entry into the national stage of the above identified application as set forth in §1.491, before the mailing date of a first Office Action on the merits of the above-identified application, or before the mailing date of a first office action after the filing of request for continued examination under §1.114, no additional fee is required.

- ☐ In accordance with §1.129(a), this Information Disclosure Statement is being filed in connection with ☐ the first or ☐ second After Final Submission, therefore:
- ☐ Certification in Accordance with §1.97(e) is attached; or
- ☐ The fee of \$180.00 as set forth in §1.17(p) is attached.
- ☐ In accordance with §1.97(c), this Information Disclosure Statement is being filed after the period set forth in §1.97(b) above but before the mailing date of either a Final Action under §1.113 or a Notice of Allowance under §1.311, or before an action that otherwise closes prosecution in the application, therefore:
- ☐ Certification in Accordance with §1.97(e) is attached; or
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- ☐ In accordance with §1.97(d), this Information Disclosure Statement is being filed after the mailing date of either a Final Action under §1.113 or a Notice of Allowance under §1.311 but before, or simultaneously with, the payment of the Issue Fee, therefore included are: Certification in Accordance with §1.97(e); and the submission fee of \$180.00 as set forth in §1.17(p).
- ☐ Copies of each of the references listed on the attached Form PTO-1449 are enclosed herewith.
- ☒ Copies of references listed on the attached Form PTO-1449 are enclosed herewith EXCEPT THAT:
- ☒ In view of the voluminous nature of reference AC, and the likelihood that this reference is available to the Examiner, copy is not enclosed herewith.

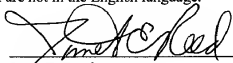
- ☐ In accordance with §1.98(d), copies of the following references listed on the attached Form PTO-1449 are not enclosed herewith because they were previously cited by or submitted to the U.S. Patent and Trademark Office in patent application(s) for which a claim for priority under 35 U.S.C. §120 have been made in the instant application:
- ☐ Copies of references [list as appropriate] listed on the attached Form PTO-1449 were previously cited by or submitted to the Patent and Trademark Office in prior application Serial No. , filed .
- ☐ If any of the foregoing publications are not available to the Examiner, Applicant will endeavor to supply copies at the Examiner's request.

Please charge any deficiency or credit any overpayment to Deposit Account No. 23-3050.

This form is submitted in duplicate.

There are no listed references which are not in the English language.

Date:



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Form PTO-1449 Modified List of Patent and Publications Cited by Applicant (Use several sheets if necessary) U.S. Department of Commerce Patent and Trademark Office		Docket No. PU-0031/ 01-1739-1	Serial No. 09/965,967
		Applicant Vigong Shi	
		Filing Date September 28, 2001	Group 1646
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
	AA	Ambrosini, G., et al., "Induction of apoptosis and inhibition of cell proliferation by survivin gene targeting," <i>J. Biol. Chem.</i> , 1998 , 273(18), 11177-11182	
	AB	Ashhab, Y., et al., "Two splicing variants of a new inhibitor of apoptosis gene with different biological properties and tissue distribution pattern," <i>FEBS Lett.</i> , 2001 , 495, 56-60	
*	AC	Brunger, A.T., X-PLOR, a System for Crystallography and NMR, <i>Yale University Press</i> , New Haven, CT., 1991	
	AD	Chai, et al., "Structural and biochemical basis of apoptotic activation by Smac/DIABLO," <i>Nature</i> , 2000 , 406, 855-862	
	AE	Chen, P., et al., "Grim, a novel cell death gene in drosophila," <i>Genes & Devel.</i> , 1996 , 10, 1773-1782	
	AF	Deveraux, Q.L., et al., "IAP family proteins - suppressors of apoptosis," <i>Genes & Dev.</i> , 1999 , 13, 239-252	
	AG	Du, C., et al., "Smac, a mitochondrial protein that promotes cytochrome c-dependent caspase activation by eliminating IAP inhibition," <i>Cell</i> , 2000 , 102, 33-42	
	AH	Goyal, L., et al., "Induction of apoptosis by drosophila reaper, hid and grim through inhibition of IAP function," <i>EMBO J.</i> , 2000 , 19(4), 589-597	
	AI	Hay, B., "Understanding IAP function and regulation: a view from drosophila," <i>Cell Death Differ.</i> , 2000 , 7, 1045-1056	
	AJ	Hruby, V.J., et al., "Conformational and topographical considerations in designing agonist peptidomimetics from peptide leads," <i>Curr. Med. Chem.</i> , 2000 , 7, 945-970	
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* A copy of this reference will not be forwarded to the U.S. Patent and Trademark Office since it is believed to be too voluminous and easily obtainable by the Examiner.



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Form PTO-1449 Modified List of Patent and Publications Cited by Applicant (Use several sheets if necessary) U.S. Department of Commerce Patent and Trademark Office		Docket No. PU-0031/ 01-1739-1	Serial No. 09/965,967
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
AK	Hruby, V.J., et al., "Synthesis of oligopeptide and peptidomimetic libraries," <i>Curr. Op. In Chem. Biol.</i> , 1997 , 1, 114-119		
AL	Jones, T.A., et al., "Improved methods for building protein models in electron density maps and the location of errors in these models," <i>Acta Crystallogr.</i> , 1991 , A47, 110-119		
AM	Kasof, G.M., et al., "Livin, a novel inhibitor of apoptosis protein family member," <i>J. Biol. Chem.</i> , 2001 , 276(5), 3238-3246		
AN	Kraulis, P.J., "Molscript: a program to produce both detailed and schematic plots of protein structures," <i>J. Appl. Crystallogr.</i> , 1991 , 24, 946-950		
AO	Lisi, S., et al., "Diverse domains of THREAD/DIAP1 are required to inhibit apoptosis induced by REAPER and HID in drosophila," <i>Genetics</i> , 2000 , 154, 669-678		
AP	Liu, Z., "Structural basis for binding of Smac/DIABLO to the XIAP BIR3 domain," <i>Nature</i> , December 2000 , 1004-1008		
AQ	McCarthy, J.V., et al., "Apoptosis induced by <i>drosophila</i> reaper and grim in a human system," <i>J. Biol. Chem.</i> , 1998 , 273(37), 24009-24015		
AR	Morgan, B.A., et al., "Chapter 26. Approaches to the discovery of non-peptide ligands for peptide receptors and peptidases," <i>Ann. Rep. Med. Chem.</i> , 1989 , 243-252		
AS	Navaza, J., "AmoRe: an automated package for molecular replacement," <i>Acta Crystallogr.</i> , 1994 , A50, 157-163		
AT	Nicholls, A., et al., "Protein folding and association: insights from the interfacial and thermodynamic properties of hydrocarbons," <i>Proteins: Struct. Funct. & Genet.</i> , 1991 , 11, 281-296		
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		Filing Date September 28, 2001	Group 1646
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
AU	Ripka, A.S., et al., "Peptidomimetic design," <i>Curr. Op. Chem. Biol.</i> , 1998 , 2, 441-452		
AV	Srinivasula, S.M., et al., "A conserved XIAP-interaction motif in caspase-9 and Smac/DIABLO regulates caspase activity and apoptosis," <i>Nature</i> , 2001 , 410, 112-116		
AW	Sun, C., et al., "NMR structure and mutagenesis of the third bir domain of the inhibitor of apoptosis protein XIAP," <i>J. Biol. Chem.</i> , 2000 , 275(43), 33777-33781		
AX	Terwilliger, T.C., et al., "The CCP4 suite: Programs for protein crystallography," <i>Acta Crystallogr.</i> , 1994 , D50, 760-763		
AY	Terwilliger, T.C., et al., "Correlated phasing of multiple isomorphous replacement data," <i>Acta Crystallogr.</i> , 1996 , D52, 749-757		
AZ	Verhagen, A.M., et al., "Identification of DIABLO, a mammalian protein that promotes apoptosis by binding to and antagonizing IAP proteins," <i>Cell</i> , 2000 , 102, 43-53		
BA	Vucic, D., et al., "Inhibition of reaper-induced apoptosis by interaction with inhibitor of apoptosis proteins (IAPs)," <i>Proc. Natl. Acad. Sci. USA</i> , 1997 , 94, 10183-10188		
BB	Vucic, D., et al., "ML-IAP, a novel inhibitor of apoptosis that is preferentially expressed in human melanomas," <i>Curr. Biol.</i> , 2000 , 10, 1359-1366		
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